

## **REMARKS**

Reconsideration of this application is respectfully requested. Claims 85-93 have been amended to recite a "cellulose ether" rather than a "carboxymethyl cellulose." Support for this amendment is found at, for example, page 4, lines 2-6, page 9, lines 3-6, and page 10, lines 8-10, of the specification and original claims 25 and 28. Claims 94-97 have been added. Support for these claims is found, for example, at page 15, lines 15-20, of the specification. No new matter has been added. Claims 1-97 are pending. Because claims 1-41, 46-60, 62-73, and 75-84 have been withdrawn from consideration, only claims 42-45, 61, 74, and 85-97 are at issue.

To date, applicants have not received an initialed copy of the list of references (Form PTO-1449) submitted with the June 18, 2003 Information Disclosure Statement. Applicants respectfully request that the reference cited in the June 18, 2003 Information Disclosure Statement be considered and that it be cited of record in the prosecution history of this application by initialing the list of references (Form PTO-1449). A copy of the Form PTO-1449 submitted to the Patent Office is enclosed.

Claims 85-93 have been provisionally rejected over claims 1-4 of U.S. Patent No. 6,686,464 under the judicially created doctrine of obviousness-type double patenting. Without conceding the correctness of this rejection, submitted herewith is a terminal disclaimer over U.S. Patent No. 6,686,464. Accordingly, applicants respectfully request withdrawal of this rejection.

Claims 42-45 have been rejected as anticipated by Omiya (U.S. Patent No. 4,508,894).

Applicants respectfully traverse this rejection and request reconsideration.

In the April 16, 2004 Office Action, the Examiner states that "[i]f the product in [a] product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable." Office Action at 5.

Applicants respectfully submit that it is the product *of the process* recited in the claim, not the product made by any process, which is to be compared to the prior art. *See In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985) ("Thorpe does not assert that the product *of his process* is different from the product of the prior art." (italics added)). *See also* M.P.E.P. §2113.

The cellulose ethers recited in claims 42-45 are prepared by (1) obtaining mercerized and recovered cellulose pulp and (2) converting it into CMC. These cellulose ethers have significantly higher viscosities than similar cellulose ethers produced from cellulose pulp which has not been mercerized and recovered, as in Omiya.

Table 1 below shows the viscosities of carboxymethyl celluloses (CMC's) prepared by the process recited in claim 42 (Examples 1, 7, 9, and 10 of the present application), i.e., obtaining mercerized and recovered cellulose pulp and then converting it into CMC. A control experiment was also performed in which the cellulose pulp was not mercerized and recovered before being converted into CMC, i.e., the procedure of Omiya.

Table 1

CMC Derived from Cotton Linter Pulp				
Example No. in the present application	Concentration of NaOH (%)	1% Solution Viscosity (cP)	Control's 1% Solution Viscosity (cP)	Percentage Change in Viscosity
1 (Never-dried) <sup>1</sup>	14	80095	34690	130.89%
	18	83745	34690	141.41%
7 (Never-dried)	18 (Average)	79410	21493	269.47%
7 (Re-wetted dried)	18 (Average)	43453	21493	102.17%
9 (Never-dried)	18	75190	30145	149.43%
10 (Never-dried)	18	55335	25685	115.44%
10 (Never-dried)	18	57190	13920	310.85%

<sup>1</sup> The 7 and 10% NaOH treated pulp contained 0% sheet cellulose II and, therefore, was not mercerized.

The CMCs produced from mercerized and recovered cellulose pulp had viscosities at least 102% greater than those which were produced from native cellulose pulp (as in Omiya).

The presently claimed cellulose ethers are, therefore, different from and novel over the cellulose ethers of Omiya, which are not prepared from mercerized and recovered cellulose pulp.

Accordingly, applicants respectfully request withdrawal of this rejection.

Claims 61 and 74 have been rejected as anticipated by Morse (U.S. Patent No. 4,269,859).

Applicants respectfully traverse this rejection and request reconsideration.

As shown by Examples 1-4 (tables 1a, 2, 4, and 5) and Figure 1 (Example 6) of the present application, cellulose floc prepared from mercerized and recovered cellulose pulp exhibits a significantly greater dry floc density than that prepared from unmercerized pulp, as in Morse (see col. 4, lines 25-31, and col. 4, line 65, to col. 5, line 25). For example, the dry floc density of the cellulose flocs prepared from mercerized and recovered cellulose pulp in Example 1 ranged from 0.147 to 0.152, whereas that for similar cellulose floc prepared from unmercerized cellulose pulp was 0.108 (about a third less).

Because the mercerized and recovered cellulose flocs of claims 61 and 74 have significantly greater dry floc densities than those prepared from unmercerized pulp (as in Morse) the cellulose flocs of claims 61 and 74 are different from and novel over the cellulose products of Morse. Accordingly, applicants respectfully request withdrawal of this rejection.

In view of the above remarks, it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Respectfully submitted

A handwritten signature in black ink, appearing to read 'J. P. Lessler', written over a horizontal line.

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